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**Approach for isolated nocturnal hypertension and BP variability**

**Jong Hyun Jhee**

***Yonsei University Gangnam Severance Hospital, Korea***

Current international guidelines refer to the importance of 24-hr blood pressure (BP) assessed by ambulatory BP monitoring (ABPM) for cardiovascular risk stratification in hypertensive patients. In addition to average 24-hr BP values, ABPM provides a variety of useful BP profiles, such as day and nighttime BP patterns, dipping patterns, and variability of BPs. The prognostic role of blood pressure variability (BPV), measured by ABPM for 24-hr, has emerged on adverse cardiovascular events or mortality in hypertensive patients. Increased short-term BPV or disrupted diurnal patterns of BP such as isolated nocturnal hypertension apparently harm microvascular structure and contribute to subclinical organ damage including heart, blood vessels, and kidney irrespective of average 24-hr BP levels. However, there is still debate about whether short-term BPV adds to the prognostic value of average 24-hr BP and traditional risk factors for cardiovascular disease.

Hypertension is a leading risk factor for progression of kidney disease and conversely contributes to high morbidity and mortality in patients with chronic kidney disease (CKD). Thus, early identification among hypertensive patients who are prone to progress to CKD unravel the potential for preventing future poor outcomes. In particular, due to the vulnerable nature to BP fluctuation in patients with impaired kidney function, no consistent evidences exist on the effect of short-term BPV and clinical outcomes in those population. Moreover, few studies have longitudinally evaluated the association of short-term BPV or dipping patterns with the kidney function impairment.

Despite the clinical significance of short-term BPV has been reported, there is no gold-standard method for its measurement. Dipping patterns, average real variability, standard deviation, or coefficient of variance assessed by ABPM are most frequently used indicators in research fields. However, discrepancies between different measures are reported and their associations with the risk of target organ damage are also different.

In this lecture, the relationship between diurnal variation of BP including isolated nocturnal hypertension and short-term BPV and clinical outcomes will be discussed. Appropriate approaches to assess short-term BPV will be also discussed.